C. J. ULMER.

Gages for Circular-Saws.

No. 138,453. Patented April 29, 1873.

Fig. 1.

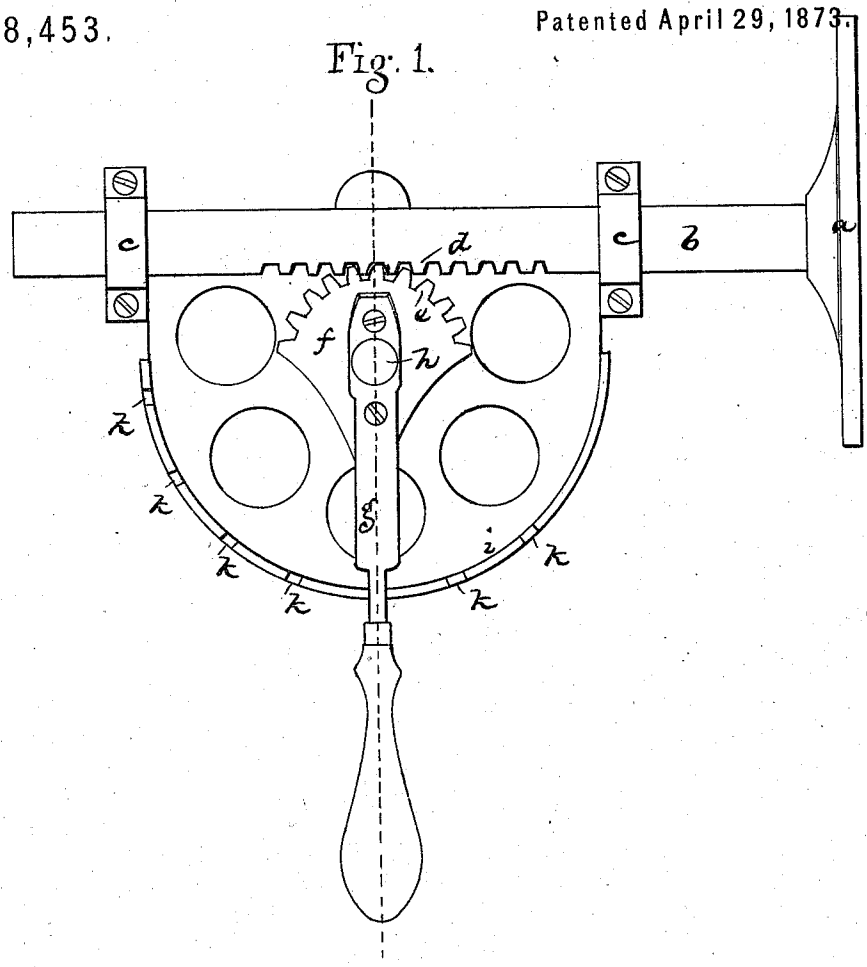
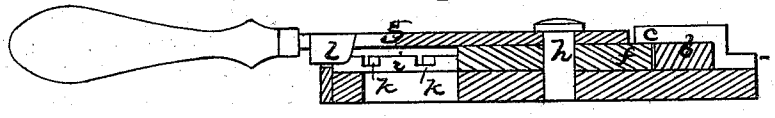


Fig. 2.



WITNESSES.
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INVENTOR:
Charles J. Ulmer.
By his Attys.
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UNITED STATES PATENT OFFICE.

CHARLES J. ULMER, OF EAST CAMBRIDGE, MASSACHUSETTS.

IMPROVEMENT IN GAGES FOR CIRCULAR SAWS.

Specification forming part of Letters Patent No. **138,453**, dated April 29, 1873; application filed April 2, 1873.

To all whom it may concern:

Be it known that I, CHARLES J. ULMER, of East Cambridge, in the county of Middlesex and State of Massachusetts, have invented Improvements in Gages for Circular Saws; and I do hereby declare that the following, taken in connection with the drawing which accompanies and forms part of this specification, is a description of my invention sufficient to enable those skilled in the art to practice it.

My invention relates to the construction of an adjustable gage mechanism for circular-saw machines, the invention being particularly intended for lath-machines.

The gage is generally fixed to slide-bars and is adjusted in position by means of bolts, nuts, and slots, each change of position requiring the nuts to be loosened and tightened by a wrench.

In my invention I attach the guide to a slide-bar moving in suitable bearings and having a gear-rack on one edge, and upon the table upon which such slide moves I pivot a lever having at its end a toothed or gear-segment, the teeth of which, as the lever is turned, mesh into the teeth of the gage-bar and move the gage in or out. Upon the table, concentric with the fulcrum of this lever, I fix a notched semicircular or curved plate, into any notch of which a tooth on the under side of the lever will spring when the lever is brought over such notch, the lever being formed of steel and having spring sufficient to enable it to be drawn up to raise the tooth to the top of the notched plate and to hold the tooth firmly in the notch when the lever is released.

By means of the slide-gear and gage-bar, the gear-segment lever, and the notched plate, the gage may be instantly adjusted, and, when positioned, is held as firmly as if bolted to the table.

My invention consists in the construction or arrangement thus generally described.

The drawing represents a gage and its adjusting mechanism embodying the invention.

Figure 1 shows the mechanism in plan. Fig. 2 is a central cross-section.

a denotes the gage at the end of a bar, *b*, that, with the gage, slides upon the table, the bar moving in suitable guides or bearings *c*. On the inner side of the bar *b* are gear-teeth *d*, with which engage gear-teeth *e* on a segment, *f*, at the end of the lever *g*. This lever is fulcrumed at *h* and extends over a circular plate, *i*, fixed upon the table concentric to the pivotal center *h*. The plate has notches *k* cut down into it from its upper edge, and on the under side of the lever is the tooth or projection *l*, that engages with these notches as the lever is turned, the lever being formed of spring-steel, and the stress of the spring holding the tooth firmly in the notch, but permitting the outer arm of the lever to be raised sufficiently to swing the tooth over the plate from notch to notch.

By moving the lever the gage is slid in either direction to position it with relation to the saw, and thereby adjust the width or thickness cut by the saw.

I claim—

The sliding gage and gear-bar *b*, lever *g*, segment *f*, tooth *l*, and notch-plate *i*, when constructed, combined, and relatively arranged, substantially as and for the purpose specified.

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Witnesses:

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